

James Caudill, Ph.D.  
Division of Economics  
U.S. Fish and Wildlife Service  
Arlington VA  
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**Impact of management alternatives on local tax revenue  
Upper Mississippi River National Wildlife and Fish Refuge CCP/EIS**

The four management alternatives each have a land acquisition component; alternative A plans to acquire 7,500 acres by 2020, alternatives B, C, and D will each acquire 15,000 acres by 2020. Tables 1 and 2 show estimated acreage, by state, of lands proposed for acquisition under the four alternatives by 2020, within the 1987 Master Plan approved acquisition boundary. Statewide estimates are in the same proportion as shown on page 4.53 of the 1987 Refuge Master Plan.

<b>Table 1. Estimate of Land Acquisition: Alternative A</b>			
State	Percent of Proposed 1987 Master Plan Acquisition Boundary	Acres acquired per year by 2020	15 year total
Minnesota	19 %	95	1,425
Wisconsin	25 %	125	1,875
Iowa	20 %	100	1,500
Illinois	36 %	180	2,700
<b>Total</b>	<b>100 %</b>	<b>500</b>	<b>7,500</b>

<b>Table 2. Estimate of Land Acquisition: Alternatives B, C, and D</b>			
State	Percent of Proposed 1987 Master Plan Acquisition Boundary	Acres acquired per year by 2020	15 year total
Minnesota	19 %	190	2,850
Wisconsin	25 %	250	3,750
Iowa	20 %	100	3,000
Illinois	36 %	360	5,400
<b>Total</b>	<b>100 %</b>	<b>1,000</b>	<b>15,000</b>

When the land is acquired by the Service, county tax revenue declines accordingly, but is at least partially compensated by the Refuge Revenue Sharing program. Tables 3 and 4 show estimates of refuge revenue sharing payments under each of the four alternatives.

Table 3 shows refuge revenue sharing payments for alternative A. Column 1 shows the total number of acres by state in the Refuge in 2003. Column 2 shows the FWS appraised value of these acres in 2003. Column 3 shows the total revenue sharing payments made to local governments within each state in 2003. Column 4 shows the revenue sharing payments on a per acre basis. Column 5 shows the total number of acres by state acquired by 2020. Column 6 shows the revenue sharing payments associated with these additional acres for the year 2020. These payments in 2020 are based on several assumptions:

- (1) the appraised value in 2020 reflects the average annual increase in farmland value from 1994 to 2003, which for the four states was 59.6 percent<sup>1</sup>. This amounts to an average annual increase of 6.6 percent. Consequently, the 2020 appraised value which column 6 is based on is the result of 6.6 percent annual increase in farmland value from 2005 to 2020.
- (2) The vast majority of land targeted for acquisition is rural land in wooded areas or open fields not being used for other purposes such as residential, commercial, industrial, or active farmland. Since it is not known at this time which specific land parcels will be acquired, a conservative (high) estimate of the value of the acquired land is used for the estimates of revenue sharing payments and tax revenue foregone which follow. Consequently, the value of farmland is used as a proxy for the type of rural land which will actually be acquired by 2020, even though crop-producing farmland will not be the focus of FWS acquisition efforts.
- (3) FWS land appraisals will be consistent with assumed increases in the market value of the type of land to be acquired by the Refuge.
- (4) The percentage of the full revenue sharing payments appropriated by Congress will remain at 54.2 percent from 2005 to 2020.

Column 7 shows the total revenue sharing payments for the Refuge in 2020 including the additional, acquired acres. The revenue sharing payments are based on the FWS estimated appraised value multiplied by 0.0075% multiplied by 0.542 (54.2 percent, which is the most recent 5-year average percentage of the full revenue sharing payment appropriated by Congress).

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<sup>1</sup> See Taff; Duffy; Scott and Lattz; and Wisconsin Agricultural Statistics Service.

<b>Table 3. Estimate of Refuge Revenue Sharing Payments: Alternative A</b> (2003 dollars)							
State	2003 Refuge Acres (1)	FWS Appraised Value for Revenue Sharing Purposes 2003 (2)	Total Revenue Sharing Payments 2003 (3)	Revenue sharing payments per acre 2003 (4)	Proposed additional acres of Refuge land 2020 (5)	Additional revenue sharing payments (6)	Total revenue sharing payments 2020 (7)
Minnesota	18,148	\$4,750,500	\$17,244	\$0.95	1,425	\$4,216	\$57,909
Wisconsin	49,037	\$13,817,145	\$51,258	\$1.05	1,875	\$5,971	\$162,140
Iowa	20,727	\$4,820,838	\$18,100	\$0.87	1,500	\$3,943	\$58,431
Illinois	3,313	\$925,000	\$3,420	\$1.03	2,700	\$8,520	\$18,975
<b>Total</b>	<b>91,225</b>	<b>\$24,313,483</b>	<b>\$90,022</b>	<b>\$0.99</b>	<b>7,500</b>	<b>\$22,593</b>	<b>\$297,455</b>

Table 4 shows the estimated revenue sharing payments for Alternatives B, C, and D. These alternatives acquire twice the number of acres compared with Alternative A and result in revenue sharing payments associated with the additional acres of \$45,186 annually. Total revenue sharing payments are estimated to be \$320,106 annually.

<b>Table 4. Estimate of Refuge Revenue Sharing Payments: Alternatives B, C and D</b> (2003 dollars)							
State	2003 Refuge Acres	FWS Appraised Value for Revenue Sharing Purposes 2003	Total Revenue Sharing Payments 2003	Revenue sharing payments per acre 2003	Proposed additional acres of Refuge land 2020	Additional revenue sharing payments	Total revenue sharing payments 2020
Minnesota	18,148	\$4,750,500	\$17,244	\$0.95	2,850	\$8,432	\$62,125
Wisconsin	49,037	\$13,817,145	\$51,258	\$1.05	3,750	\$11,943	\$168,111
Iowa	20,727	\$4,820,838	\$18,100	\$0.87	3,000	\$7,886	\$62,374
Illinois	3,313	\$925,000	\$3,420	\$1.03	5,400	\$17,041	\$27,496
<b>Total</b>	<b>91,225</b>	<b>\$24,313,483</b>	<b>\$90,022</b>	<b>\$0.99</b>	<b>15,000</b>	<b>\$45,186</b>	<b>\$320,106</b>

Table 5 estimates tax revenue by state for lands that are adjacent or within FWS refuge boundaries (Refuge Revenue Sharing Study: Regional Summary, December 1994). Data from 1994 is projected to 2020 using the 6.6 percent annual increase discussed previously and adjusted for inflation to 2003 dollars. The last column in the table, "Estimated Tax Revenue per Acre 2020", shows the expected tax revenue per acre in 2020 if the land had continued to be used in its 1994 use. This per acre figure will be used in conjunction with refuge revenue sharing payments to estimate the change in tax revenue from FWS land acquisition through 2020.

<b>Table 5. Estimated Tax Revenue by State 2020</b>				
State	Acres	Estimated Tax Revenue 2003	Estimated Tax Revenue 2020	Estimated Tax Revenue per acre 2020
Minnesota	340,718	\$3,177,898	\$8,288,921	\$24.33
Wisconsin	131,672	\$1,576,891	\$4,113,010	\$31.24
Iowa	37,482	\$413,823	\$1,079,376	\$28.80
Illinois	68,278	\$544,839	\$1,421,105	\$20.81
<b>Total</b>	<b>578,150</b>	<b>\$5,713,452</b>	<b>\$14,902,414</b>	<b>\$25.78</b>

Tables 6 and 7 show the estimated tax revenue loss from the acquisition of additional land under each alternative. The decline in tax revenue per acre averages \$22.77 across the four states. Since Alternative A acquires 7,500 acres, this translates into an annual loss of tax revenue of \$169,975.

<b>Table 6. Estimated Tax Revenue Loss from Acquired Acres, 2020: Alternative A</b>					
State	Tax Revenue per Acre 2020	Revenue Sharing Payments per acre 2020	Decline in tax revenue per acre	Alternative A acquired acres 2020	Tax Revenue loss from acquired acres 2020
Minnesota	\$24.33	\$2.96	\$21.37	1,425	\$30,452
Wisconsin	\$31.24	\$3.18	\$28.06	1,875	\$52,613
Iowa	\$28.80	\$2.63	\$26.17	1,500	\$39,255
Illinois	\$20.81	\$3.16	\$17.65	2,700	\$47,655
<b>Total</b>	<b>\$25.78</b>	<b>\$3.01</b>	<b>\$22.77</b>	<b>7,500</b>	<b>\$169,975</b>

Table 7 shows the estimated loss in tax revenue for Alternatives B, C, and D. Each of these alternatives would result in 15,000 additional acres being acquired. Tax revenue loss from these acquired acres would total \$339,950 annually (2003 dollars).

<b>Table 7. Estimated Tax Revenue Loss from Acquired Acres, 2020: Alternatives B, C and D</b>					
State	Tax Revenue per Acre 2020	Revenue Sharing Payments per acre 2020	Decline in tax revenue per acre	Alternatives B, C, and D acquired acres 2020	Tax Revenue loss from acquired acres 2020
Minnesota	\$24.33	\$2.96	\$21.37	2,850	\$60,905
Wisconsin	\$31.24	\$3.18	\$28.06	3,750	\$105,225
Iowa	\$28.80	\$2.63	\$26.17	3,000	\$78,510
Illinois	\$20.81	\$3.16	\$17.65	5,400	\$95,310
<b>Total</b>	<b>\$25.78</b>	<b>\$3.01</b>	<b>\$22.77</b>	<b>15,000</b>	<b>\$339,950</b>

## References

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